Chapter 1

The Playing Fields: Nasdaq and the NYSE

If you want to master a new sport, one of the first things you must do is learn about the field on which it is played. If the sport is golf, you'll study the fairways and sand traps and greens of the golf course. If it is tennis, you'll learn the layout of the singles court and the doubles court. If you're learning to sail, you'll study the bay or lake on which you plan to sail. Of course, it is most important to learn the rules, regulations, and etiquette of the sport, but these flow from the field on which the sport is played.

For the equity day trader, the playing fields are the Nasdaq Stock Market and the New York Stock Exchange (NYSE). You can choose to play exclusively on one or the other, or you can play on both. Whichever you choose, you should learn as much as you can about how the markets operate.

auction market
a market in which traders meet on a trading floor to buy and sell securities through a specialist (such as the New York Stock Exchange and the American Stock Exchange).

SPECIALIST VERSUS DEALER MARKETS

The New York Stock Exchange is commonly referred to as an *auction market*, while the Nasdaq has been called by

negotiated market a market in which prices are negotiated between buyers and sellers.

specialist the firm or individual who makes a market in a listed stock and manages all orders for that stock.

market maker a broker/dealer or investment bank that makes a two-sided market in a Nasdaq security by maintaining a firm quote on both the buy side and the sell side. Market makers are appointed and regulated by the National Association of Security Dealers (NASD).

some a *negotiated market*. In reality, stocks are bought and sold in each market through bids and offers based on supply and demand, which is the basis of an auction. The difference is that the bids and offers at the NYSE are controlled by one person (the *specialist*) and at the Nasdaq by many competitors (*market makers*). In this way, the NYSE can be considered a *specialist market*, and the Nasdaq, a *dealer market*.

The AMEX and the Regionals

The American Stock Exchange (AMEX) operates through specialists, like the NYSE (www.nyse.com). It is not considered a primary playing field for day traders, even for those who trade only listed stocks. It merged with Nasdaq in 1998, but it is not part of the SOES or SelectNet systems, and any orders sent to the AMEX are routed directly to the specialist, just as they are with an NYSE stock. You can learn more about the American Stock Exchange at www.amex.com.

There are also six regional stock exchanges:

Arizona	www.azx.com
Boston	www.bostonstock.com
Chicago	www.chicagostockex.com
Cincinnati	www.cincinnatistock.com
Pacific	www.pacificex.com
Philadelphia	www.phlx.com

None of the regional exchanges can be accessed directly by individuals. *The Intermarket Trading System* (ITS) links all the exchanges and, through the Consolidated Quote System (CQS), displays quotes for listed stocks.

Specialists and market makers must agree to maintain liquidity in a stock by always having a ready buyer for shares that someone wants to sell or a ready seller for shares that someone wants to buy. If a ready buyer or seller cannot be found at any given time, the firm must use its own capital to buy or sell the stock for its own account.

As a day trader, it is important to understand the way specialists and market makers operate because you will be competing with these professionals for every dollar you make. The better you know your opponents, the more profitable you're likely to be.

specialist market a market, such as the New York Stock Exchange or American Stock Exchange, in which a single firm or individual is assigned the responsibility of maintaining the market and handling the order flow for each stock listed on the exchange.

The New York Stock Exchange

The New York Stock Exchange operates from a 36,000-square-foot trading floor at 11 Wall Street in New York City.[1] Each of the 3,000-plus stocks listed on the NYSE is assigned to one of 27 specialist firms that are members of the exchange. Each specialist firm hires individuals—the specialists—to manage the stocks assigned to the firm. An individual specialist may manage from 2 to 10 stocks (the mixture is balanced between high-volume and low-volume stocks), but each stock is represented by only one specialist.

The specialist operates out of one of the 17 *trading posts* on the floor of the exchange. Each trading post is manned by several specialists and their assistants and outfitted with dozens of computer screens. One post can accommodate more than 150 different *securities*. Views of the trading posts and the floor of the exchange can be seen at the NYSE web site at www.nyse.com (and also in the background of live television broadcasts from the floor of the exchange).

dealer market a market, like Nasdaq, which has competing broker/dealers who make a market in each stock, each using its own capital and other resources.

Along the perimeter of the floor of the exchange are about 1,400 *trading booths* (also called *broker booths*) owned and run by member firms and independent brokers. Formerly referred to as "seats" on the exchange; they're now called "memberships." They are purchased by broker/dealers or investment banking firms like Goldman Sachs, Merrill Lynch, or Salomon Smith Barney for the privilege of doing business at the New York Stock Exchange. Members may also purchase physical or electronic access rather than a seat.

Floor brokers, the individuals who trade stocks on the floor of the exchange, communicate with the specialists face-to-face, while brokers who are not on the trading floor

Intermarket Trading System (ITS)
the system that electronically links all U.S. stock exchanges.

trading posts
the 17 computerized structures on the floor of the NYSE from which specialists trade their securities.

securities
a general term that encompasses equity instruments (stocks) and debt instruments (bonds), although the term is often used interchangeably with stocks.

communicate with the specialists directly through *SuperDot*, the NYSE's electronic order-handling system. There are also independent floor brokers not associated with a broker booth—known as "free agents"—who represent nonmember broker/dealers.

All orders for a stock flow through the specialist, who is responsible for matching buy orders with sell orders—or, as mentioned earlier, if no buyers or sellers can be found, to trade the stock for his or her firm's account. Obviously, this gives the specialist enormous control over the price of the stock. That control is most obvious whenever a specialist calls a *trading halt*. If an unusual news event is expected to greatly impact the price of a stock, the NYSE specialist can stop trading in the stock—sometimes for hours—until he or she can sort out the orders and arrive at a "reasonable" price.

SuperDot

SuperDot is the *Super Designated Order Turnaround System* used by the New York Stock Exchange since 1976 (originally called DOT and renamed SuperDot in 1984). It links member firms directly to the specialists and is used primarily for smaller orders (orders less than 2,100 shares have priority). Some 40 percent of all shares traded on the NYSE go through SuperDot, but it handles more than 80 percent of all NYSE orders. SuperDot is not directly accessible by individuals, but when a day trader routes an order to the NYSE, it goes through SuperDot.

Execution of an NYSE Trade. Day traders' orders are routed directly to SuperDot, but to see how brokers and specialists work together, let's do a little role-playing as an ordinary investor.

- ✔ Let's say you just placed an order with your broker at Merrill Lynch to buy America Online (AOL), an NYSE-listed stock.
- ✔ Your ML broker transmits the order (either by phone or electronically) to the Merrill Lynch bro-

ker booth on the floor of the exchange. The order is printed and handed to a floor broker. The floor broker then becomes your agent for the purchase or sale of the stock.

- ✔ If your order is a *market order*, the floor broker carries it to the trading post of the specialist that represents AOL and tries to get the best price from other floor brokers who are holding sell orders at the AOL trading post.
- ✔ If the order is a *limit order*, the AOL specialist enters it into a computerized *limit order book* where it will stay until it becomes a *marketable limit order*—that is, until the stock price reaches the limit price, at which time the limit order becomes a market order and is executed—or until the order expires or is canceled.
- ✔ Once a trade is executed, the process is reversed. The specialist enters the trade in the system, where it appears instantaneously on tickers around the world. The floor broker transmits the information to the Merrill Lynch trading booth, which relays it to your ML broker, who calls or e-mails you with a confirmation.

trading booths
the structures (about 1,400) along the perimeter of the floor of the NYSE from which member firms and independent brokers operate.

broker booth
a trading booth.

floor broker
brokers who work on the floor of the New York Stock Exchange, either as employees of brokerage houses (commission brokers) or for themselves (independent brokers). The latter execute orders for both member brokers and non-member brokers.

Big Brother Sees All

Stock Watch is a computerized system on the floor of the NYSE that helps guard against manipulation and insider trading. The system continuously monitors trading activity and automatically flags unusual volume or price changes in any listed stock. If no legitimate explanation is apparent, such as a company announcement or industry trend, the NYSE will launch an investigation. For more on its investigative approach, click Regulation, then Market Surveillance at www.nyse.com. There is a similar regulatory eye at the Nasdaq Stock Market called MarketWatch. (Click About Us, then MarketWatch at www.nasdaq.com.)

SuperDot the electronic order handling system used by the New York Stock Exchange, primarily for small orders. It was originally named the Designated Order Turnaround (DOT) system and renamed SuperDot in 1984 after certain enhancements.

trading halt a pause in the trading of security, initiated by the specialist, that occurs when significant news is released about the security, to give the market time to absorb the impact of the news.

This is a very simplified overview of a trade, and in reality, this sequence takes place only on large institutional orders. Small orders, from day traders and ordinary investors, are entered directly into the SuperDot system by the brokerage firm and routed automatically to the specialist's booth.

Despite the apparent chaos on the trading floor during market hours, the NYSE is an orderly, highly regulated machine and less volatile than Nasdaq. Some day traders prefer to trade only NYSE stocks for that reason, but others consider the specialist system slow and cumbersome. For most day traders, Nasdaq is where the action is.

NYSE Mini-Fact Sheet

Founded: The forerunner of the NYSE was founded in 1792 when 24 brokers signed an agreement to trade only with each other, initially conducting business under a buttonwood tree on what is now Wall Street.

Renamed: The New York Stock Exchange in 1863.

Location: 11 Wall Street, New York, New York.

Chairman and chief executive officer: Richard A. Grasso.

Listed securities: 3,300.

Specialists: 27 firms employ approximately 460 specialists.

Order handling: SuperDot.

Seat on the exchange: In 1817 a seat on the New York Stock Exchange cost $25. In August 1999, a seat was sold for $2.65 million.

Source: www.nyse.com.

The Nasdaq Stock Market

The Nasdaq Stock Market is an electronic network of broker/dealers. It is sometimes referred to as the over-the-counter or OTC market, a name that originated in its past.

Prior to 1971, all stocks not listed on an exchange were traded "over the counter" in brokers' offices. In 1971, the National Association of Security Dealers (NASD) launched an automated quote system, which formalized and automated quotes for OTC stocks. That system was known as NASDAQ, which stood for the National Association of Security Dealers Automated Quotation system.

Four years later, listing standards were initiated, which effectively separated Nasdaq stocks from other OTC stocks.[2] Today, even though Nasdaq stocks go through a formal listing procedure, the terms listed stocks and OTC stocks are still used to distinguish between stocks traded on the NYSE (or other exchange) and those traded on Nasdaq.

A further distinction is made within Nasdaq stocks between the *Nasdaq National Market* (*NNM*) and the *Nasdaq SmallCap Market* (SmallCaps). These are two separate markets within Nasdaq. The NNM stocks have more stringent listing requirements and consequently include the largest and most actively traded securities. The SmallCaps are primarily *emerging growth companies*.

Nasdaq Market Makers. The driving force of the Nasdaq Stock Market is its cadre of market makers who compete with each other for the stocks in which they make a market. Any of the NASD's 500+ broker/dealer firms may register with the NASD (the parent company of Nasdaq) to become a market maker in any stock, if the firm meets certain net capital, staffing, and supervisory requirements. In its broker capacity, the market maker acts as an agent for its clients; in its dealer capacity, the market maker buys stock for and sells stock from its own inventory. Nasdaq market makers, like NYSE specialists, must agree to make a *two-sided market* in the stock they represent. That means the market maker must be both buyer and seller of the stock.

For each stock in which it makes a market, the market maker quotes a price at which it is willing to buy the stock (the *bid*) and the price at which it is willing to sell the stock (the *ask* or offer). There may be dozens of market makers competing for the bid and the ask on a high-

market order
an order to buy or sell a stock at the current market price, whatever that price may be when the order is executed.

limit order
an instruction to a broker to buy or sell a specified number of shares of a stock at a specific price, or better.

limit order book
a collection of unfilled limit orders held by an ECN or exchange.

marketable limit order
a limit order that can be executed because the stock price has reached the limit price.

Nasdaq National Market (NNM) Nasdaq stocks that have market caps of more than $75 million; includes about 4,400 stocks.

Nasdaq SmallCap Market Nasdaq stocks, numbering about 1,800, which have a minimum market cap of $50 million; includes primarily emerging growth companies.

emerging growth company a small-cap company in a relatively new high-growth industry.

Pink Sheet and Bulletin Board Stocks

Pink sheet stocks or bulletin board stocks are considered over-the-counter (OTC) securities, but they are not listed or traded on Nasdaq or any other exchange. They are traded through broker/dealers who use quotations from two competing services: the OTC Bulletin Board (OTCBB stocks) and the National Quotation Bureau (the pink sheet stocks). Pink sheet stocks got their name from the long pink sheets on which quotes were formerly printed. Today, both the pink sheet stocks and the bulletin board stocks are quoted electronically.

The confusion between OTC and Nasdaq stocks arises from the fact that over-the-counter securities existed long before Nasdaq came into being as a quotation and listing service (as mentioned previously). Confusion also comes from the fact that the OTCBB is regulated by the NASD, and the material at the OTCBB web site is copyrighted by the Nasdaq Stock Market. (Little wonder we're all confused.)

In the past, companies issuing OTC securities were not required to file financial statements with the Securities and Exchange Commission. But as of January 1999 all companies desiring to be "listed" on the OTCBB are required to meet certain eligibility standards, including SEC filings. By June 2000, all preexisting OTCBB companies will be required to have their filings up-to-date or be dropped from the OTCBB.

For more information, go to the OTCBB at www.otcbb.com and the National Quotation Bureau at www.nqb.com.

volume stock like Microsoft. The important thing to remember is that each market maker's goal is make a profit on each trade. It does this by pocketing the spread—the difference between the bid and the ask prices.

A market maker may be willing, for example, to buy Microsoft at $105\frac{1}{4}$ and sell it at $105\frac{3}{8}$. The $\frac{1}{8}$ difference is a $125 profit on a 1,000-share trade. This doesn't sound like much, but multiply that by hundreds of thousands of shares a day and you'll see the kinds of profits at stake.

Who Are Nasdaq Market Makers?

Some of the best-known names on Wall Street are Nasdaq market makers: Goldman Sachs, Lehman Brothers, Merrill Lynch, Morgan Stanley, PaineWebber, and Salomon Smith Barney. A list of the top 35 appears in Appendix 3. A full list can be downloaded at the Nasdaq Trader web site (www.nasdaqtrader.com).

As a day trader of Nasdaq stocks, you are competing for those same profits.

Execution of a Nasdaq Trade. To see how an ordinary investor—one without direct access to the markets—trades a Nasdaq stock, let's role-play again. Let's say you just placed a market order with an online (Web-based) broker to buy 1,000 shares of Microsoft (MSFT). Here's how it will get filled:

- ✔ Let's say the best bid (buy quote) for MSFT is $107\frac{1}{2}$ and the best ask (offer to sell) is $107\frac{3}{4}$.
- ✔ Your broker (most likely) routes your order to a specific market maker that has agreed to pay the broker so many cents a share for the privilege of filling the order. This is called "payment for *order flow*," and it is a common practice among brokers.
- ✔ If the market maker doesn't have the shares in inventory, it can buy the shares at $107\frac{1}{2}$, the best bid, and then sell them to you at $\$107\frac{3}{4}$. The $\frac{1}{4}$-point spread—$0.25 per share—goes in the market maker's pocket, minus the penny or so per share that is paid to the referring broker.
- ✔ Once the trade is completed, the market maker enters the trade into the quote system, where it appears on computers around the world as a buy.

two-sided market
a market in which the firm making the market in a security is both buyer and seller and must maintain firm bid and ask prices. Nasdaq market makers and NYSE specialists both make a two-sided market in the stocks they handle.

order flow refers to orders directed by a broker to a market maker for execution. The market maker pays the broker X cents per share for this order flow because it can make a healthy profit on the spread. Electronic brokers do not (for the most part) sell order flow; most Web-based brokers do.

buy at the bid the ability to buy stock at the inside bid price. Ordinary investors have to buy at the ask, which is higher than the bid.

✔ The market maker notifies your broker that the trade was executed, and your broker confirms the trade on your trading screen, via e-mail, or both.

Market makers, like NYSE specialists, make money on the spread. They can *buy at the bid* and *sell at the ask* (something the ordinary trader couldn't do until the advent of ECNs). The wider the spread, the greater the market maker's profit. In the old days—prior to 1987—market makers could negotiate prices with other market makers over the telephone. They were not required to give customers the best prices, and in fact often ignored customer orders to maintain artificially wide spreads. The NASD had rules against this, but the market makers were playing by their own rules.

Nasdaq Mini-Fact Sheet

Founded: 1971.

Location: Headquarters: Times Square, New York. The Nasdaq Data Center (main computers): Trumbull, Connecticut.

Chairman and chief executive officer: Frank G. Zarb.

Listed stocks: 6,200.

Nasdaq National Market (NNM): 4,400 stocks with capitalization of over $75 million.

Nasdaq SmallCap Market: 1,800 stocks with minimum market capitalization of $50 million.

Parent company: The National Association of Security Dealers (NASD).

Market makers: 500+ firms.

Order handling: SOES, SelectNet, and OptiMark.

Merger: The Nasdaq Stock Market merged with the American Stock Exchange in October 1998, but each continues to operate separately.

Source: www.nasdaq.com, www.nasdaqtrader.com, www.nasd.com.

THE CHANGING OF THE RULES

Rules of a game, like laws of a country, rarely change until they have been abused to the point that people rise up in outrage. That's what happened, essentially, after the market crashed with a 588-point drop on October 19, 1987.

In 1987 telecommunications was in its infancy. Fax machines had just begun to reach critical mass. Cell phones were still a novelty. The Internet was still a World Wide Web–less communications network for academics and government agencies. There was no such thing, in 1987, as direct access to the markets for the individual investor. Granted, Schwab and Fidelity had begun offering a primitive type of online investing through proprietary networks, but 1,200-baud modems and DOS-driven PCs made the process slow and clunky.

It was a world in which investors had no choice but to communicate with their brokers by phone. And on Black Monday, as it was called, investors were unable to sell their shares, which were tumbling like rocks down a mountain. The telephones rang and rang and rang in the brokers' offices. But the brokers refused to pick up.

In the wake of this debacle, the rules began to change.

- ✔ In 1987, the Securities and Exchange Commission (SEC) made its Small Order Execution System (SOES) mandatory, to protect small investors and prevent another debacle like Black Monday.
- ✔ In 1988, Nasdaq introduced the SelectNet system to facilitate electronic communications among market makers.
- ✔ In 1997, the Securities and Exchange Commission issued its revolutionary *SEC Order Handling Rules*, which forced Nasdaq market makers to display their best quotes to the public.
- ✔ In 1999, the Firm Quote Rule was adopted to prevent market makers from *backing away* from a quote.

Let's take a closer look at these changes.

sell at the ask
the ability to sell stock at the inside ask price. Ordinary investors have to sell at the bid, which is lower than the ask.

SEC Order Handling Rules
two rules that govern the handling and execution of limit orders (the Limit Order Display Rule) and the display of such orders on ECNs (the Quote Rule). These rules were effective in January 1997 and are responsible for the emergence of ECNs and the flourishing of the day trading industry.

backing away
a term used to indicate that a market maker is not honoring its displayed quote. As in: *PRUS is showing* $107\,^{1}/_{2}$, but he keeps backing away.

inside quote
the highest bid and lowest ask prices on a particular stock at any given time.

The Latest Rule Changes

In January 2000, the SEC approved Nasdaq's proposal to combine the functions of the SOES and SelectNet systems, and ultimately to replace both. The new system is called the Nasdaq National Market Execution System (NNMS) and is scheduled for implementation in mid-2000. For details see Chapter 2.

The SOES and SelectNet

Nasdaq's Small Order Execution System—SOES—had been introduced two years earlier, in 1985, as a way to streamline the execution of small trades at the *inside quote*. The intention was that orders of 1,000 shares or less were to be executed automatically, electronically, without negotiation between market makers who, as we've noted, had traditionally negotiated trades by phone. The market makers, for the most part, ignored the system because it was not mandatory, and when they ignored customers' phone calls on Black Monday, the SEC stepped in.

Although the Nasdaq is a self-regulating agency, the SEC has the authority to initiate and enforce such rules and regulations as may be required to protect the investing public. After the 1987 crash it became apparent that the public who invested in Nasdaq stocks needed a great deal of protection from Nasdaq market makers. So the SEC made the SOES mandatory. As a result, a market maker must now execute an order routed to it on the SOES, or risk disciplinary action from the SEC.[3]

SOES was the first crack in the market makers' armor. (In those days, a few ECNs existed but their quotes were not posted in the Nasdaq system.) SOES became the execution method of choice for the early day traders, who gained notoriety in the media as SOES bandits.[4] They could SOES a market maker—that is, route an order directly to a market maker who was at the inside quote—and the execution took place automatically and without negotiation. This enabled a wily SOES bandit to "steal the spread" from the market maker—buy at the bid and sell at the ask. (We'll cover the many rules governing the SOES in the next chapter.)

About the same time that SOES was made mandatory, SelectNet came into being. In January 1988 this electronic order routing system was introduced as a way to reduce the market makers' reliance on the telephone for negotiating trades. With SelectNet, they could negotiate trades electronically. SelectNet, which was used only for limit orders, was not mandatory, but it offered several advantages to the increasingly computerized Nasdaq market: It provided anonymity for larger orders and the opportunity to negotiate for more shares or improve the prices over those listed in the system.

Traders saw SelectNet as the market maker's way to continue to hide orders from the public, but almost a decade later it would become one of the day trader's primary order execution tools, as we shall see in the next chapter.

The Order Handling Rules

The next leveling of the Nasdaq playing field came in 1997, with the SEC again rapping the knuckles of the Nasdaq market makers.

Three years earlier, the Justice Department and the SEC had begun an investigation into 37 market making firms for manipulating the market over a six-year period from 1989 to 1994. Some of the biggest names on Wall Street were accused of conspiring to keep trading spreads artificially wide to increase their profits.[5]

The spread, remember, is the difference between the bid and the ask prices. One way a market maker could maintain an artificially wide spread was to *trade ahead* of a customer's limit order.

For example, assume the best bid for XYZ stock is $47\frac{1}{4}$, and the best ask, $47\frac{1}{2}$. If I want to buy 1,000 shares, I have to buy it at the ask—$47\frac{1}{2}$—the price at which the market maker will sell me the stock. But suppose I don't want to pay $47\frac{1}{2}$. Suppose I want to pay only $47\frac{3}{8}$. I can submit a limit order to buy 1,000 shares

trade ahead refers to a market maker ignoring a customer's order that is priced better than the inside quote and continuing to trade at the inferior quote.

at $47\frac{3}{8}$. So now the market maker is sitting there with my order to buy stock at $47\frac{3}{8}$. It *should* display that quote as its bid—because at this point, the market maker is acting as my agent. My quote would narrow the spread by $\frac{1}{8}$ point—making it $47\frac{3}{8}$ bid, $47\frac{1}{2}$ ask. But SOES didn't apply to limit orders, and market makers frequently would ignore such orders and continue to trade at the inferior price. That little trick was called "trading ahead of the customer."

The Ambiguity of Bid and Ask

These two little three-letter words—bid and ask—harbor a lot of ambiguity, because *each* has to do with both buying and selling. On the quote screen, the bid is the price at which a market maker or ECN will buy a stock—but it is the price at which you and I have to sell a stock. The ask is the price at which the market maker will sell a stock, but it is the price at which you and I have to buy the stock. If you still find this confusing, see "Deconstructing the Bid and the Ask" in Chapter 2.

Instinet the oldest electronic communications network. Identified by the symbol INCA on the Level 2 quote screen.

Another trick that market makers used in the past was to place orders on private quote systems such as *Instinet*. Prior to 1997, the Instinet ECN was available only to professionals, who used it to offer quotes better than those being displayed to the investing public. In effect, professionals got one price for a stock; individual investors got another (worse) price. These practices sparked the 1994 class-action lawsuit against dozens of Wall Street firms, which led to the investigations by the Justice Department and the SEC.

Out of this unsavory chapter in Nasdaq's history came the SEC's Order Handling Rules:

✔ The *Limit Order Display Rule* states, in essence, that market makers must display the price and full size of customer limit orders that are superior to (meaning a higher bid or a lower ask) the inside market. This rule—also called the Limit Order Protection Rule—was intended to prevent market makers from trading ahead of customer orders.

✔ The *Quote Rule* states that market makers must display their most competitive quotes to the public (for orders of 100 shares or more). In other words, they can't display their best quotes on a private system (such as Instinet was at that time) that is not accessible by the public.

Limit Order Display Rule
one of the SEC Order Handling Rules, which states that if a market maker receives a limit order priced better than its current quote for that security, that limit order becomes the best bid or best ask and must be displayed on the Level 2 screen (with the size of the quote).

There was, however, an important exception to these rules. A market maker was not required to display a customer's superior quote under its own name or ID. Instead, the SEC allowed an exception, which stated that market makers could send customer limit orders to any NASD-sponsored electronic communications network (ECN) and not be in violation of the rules.

This exception to the SEC rules opened the gate through which several ECNs promptly marched, and Wall Street has never been the same.

Quote Rule
a rule passed by the SEC in 1996 (effective January 1997) requiring Nasdaq market makers to display their most competitive quotes on a public quote system, such as Level 2.

THE NEW KIDS ON THE BLOCK

As a result of the exception to the SEC Order Handling Rules, the National Association of Security Dealers sanctioned nine ECNs and networked them into the Nasdaq quote system. Now, a market maker that doesn't want to display a quote under its own name can route it to an ECN and let the ECN display it.

The original purpose of ECNs was to facilitate Nasdaq's handling of limit orders, but ECNs have evolved into serious competitors of Nasdaq. Broker/dealers (and thus day traders) can now trade stocks directly through the ECNs (which match buy orders with sell orders and post nonmatching orders in their limit order books). As a result, ECNs have siphoned off more than 30 percent of Nasdaq's trading volume and are expected to control more than half of that volume by 2001.

Inroads into the NYSE have been less dramatic because of NYSE trading rules, specifically Rule 390, which prohibited members from trading NYSE stocks off an exchange floor. Rather than matching NYSE buy and sell orders, the ECNs simply route all NYSE orders to the appropriate specialist at the exchange. As a result, less than 5 percent of the NYSE volume is routed through ECNs. That too is destined to change since the repeal of NYSE's Rule 390 in late 1999.

Whether or not the repeal was a direct result of the growing influence of ECNs, it is an example of how Wall Street is changing the way it does business. Another area of change is *extended-hours trading*.

extended-hours trading refers to trading before and after normal market hours. (Normal market hours are 9:30 A.M. to 4:00 P.M. Eastern Time.)

While Nasdaq and the NYSE pondered the matter, the ECNs acted. In early summer of 1999, they began, one by one, to extend their trading sessions past traditional market hours. By late summer they had announced an agreement to pool their limit order books during the extended sessions to increase liquidity. By year-end, extended-hours trading was firmly entrenched. Nasdaq and the NYSE are scheduled to join the after-hours party in mid-2000. (More on this in Chapter 3.)

Another area undergoing major changes is the structure of the exchanges and the ECNs. The NYSE is a private corporation owned by its member firms; Nasdaq is a subsidiary of the National Association of Security Dealers. Each is currently self-regulated, under the watchful eye of the SEC. Now both the NYSE and Nasdaq are making plans to go public, and, as mentioned earlier, the NYSE just announced that it will launch its own ECN in 2000. (It is called the NYSeDirect+ and will provide for automatic execution of orders of 1,099 shares or less.) To make things really interesting, three ECNs are also planning to go public and have filed for exchange status, partly to escape the regulatory arm of Nasdaq, whom they consider a competitor.

The whole area seems to be going through an identity crisis.

Meet the ECNs

All you really need to know about ECNs is how to use them to display and execute your order, which we'll talk about in the next chapter. But it helps to put a face, so to speak, on each of the ECNs.[6] Keep in mind that some may not survive the shakeout that has begun, or they may survive under different names or be joined by new super-ECNs. If you learn the original nine, however, you'll be able to track the changes as they occur. Table 1.1 summarizes the salient features of the ECNs.

You may also find the flowchart in Figure 1.1 helpful in sorting out the order routing systems (SOES, SelectNet, and SuperDot) from the ECNs. Each ECN is an independent entity, a corporation in most cases, while SOES and SelectNet are Nasdaq systems and SuperDot is an NYSE system.

Instinet (INCA). Instinet (www.instinet.com) is the original ECN, predating the display rule by almost 20 years. Instinet began in 1969 as a way for institutional investors to trade directly, privately, and anonymously with each other so that their large block trades would not unduly influence the markets. Bought by Reuters in 1987, it is affiliated with several online brokers including E*Trade. Instinet trades both listed and Nasdaq stocks, as well as global equities in over 40 countries, and it is open for business 24 hours a day.

Island (ISLD). Island (www.island.com) is the most ubiquitous of the ECNs, with virtually every trading platform offering an ISLD button for direct access. Its trading volume surpasses that of the original ECN, Instinet (Table 1.1), and in mid-1999 it filed for exchange status with the SEC. It is also rumored to be contemplating an IPO.

Island was the first ECN to publicly display its limit order book, which shows all its buy and sell limit orders on each stock (Figure 1.2). To see the real-time book, go to the Island web site during market hours and enter the security symbol for your favorite stock. Keep in mind that Island's book displays only the orders held by Island; it is not the

TABLE 1.1 The Electronic Communication Networks (ECNs)

ECN	*1999 Trading Volume (000,000)*	*Owners*	*Of Interest*
Island (ISLD) www.island.com	12,421	Datek, TD Waterhouse, Vulcan Ventures	Displays limit order book at web site; filed for stock exchange status; headed for IPO
Instinet (INCA) www.instinet.com	7,816	Reuters	Oldest ECN, since 1969; designed to allow institutional money managers to trade listed stocks directly with each other
REDIBook (REDI) www.redi.com	2,439	Spear, Leeds & Kellogg*, Fidelity Investments, Charles Schwab & Co., Donaldson, Lufkin & Jenrette	Trading software: REDIPlus, REDIPlus Online
TradeBook (BTRD) www.bloomberg.com/products/trdbk.html	2,136	Bloomberg LP, Investment Technology Group	Primarily institutional; building superECN with ITG and others
Archipelago (ARCA) www.tradearca.com	1,975	E*Trade, Goldman Sachs, J. P. Morgan, Reuters' Instinet, American Century, Merrill Lynch, CNBC, Townsend Analytics	Merging with Pacific Exchange; headed for IPO; formerly known as Terra Nova (TNTO)
Brut (BRUT) (no web site)	BRUT: 1,586.0 STRK: 437.0	Bear Stearns, Bridge Trading Company, Goldman Sachs, Knight-Trimark, Lehman Brothers, Merrill Lynch, Morgan Stanley Dean Witter, Salomon Smith Barney	Brass Utility and Strike Technologies, two of the original nine ECNS, merged in February 2000 to become Brut.

TABLE 1.1 (Continued)

ECN	*1999 Trading Volume (000,000)*	*Owners*	*Of Interest*
Attain (ATTN) www.attain.com	54	All-Tech Investment Group	Direct access with the Attain software
NexTrade (NTRD) www.nextrade1.com	34	Professional Investment Management, Inc.	Affiliated with GlobalNet Financial; founding member of MatchBookFX
MarketXT (MKXT) www.marketxt.com	.5	Tradescape.com, SOFTBANK, Morgan Stanly Dean Witter, Salomon Smith Barney	After-hours ECN
Optimark (OPTI) www.optimark.com	Not available	General Atlantic Partners, SOFTBANK, American Century, Goldman Sachs, Merrill Lynch, PaineWebber	Uses a flexible pricing mechanism

*One of the largest NYSE/AMEX specialist firms and a Nasdaq market maker.
Note: The nine ECNs are listed in order of trading volume obtained from www.nasdaqtrader.com. The MMID (market maker identifier), the symbol that identifies the ECN in the Nasdaq Level 2 quote montage, is shown in parentheses.
Source: ECN web sites and press releases; trading volume from www.nasdaqtrader.com.

Level 2 quote screen. Level 2 displays only the best bid and best ask from the Island book for a particular stock. This will become clearer after you read the next two chapters.

Online brokers Datek and TD Waterhouse, and Paul Allen's Vulcan Ventures are owners of Island. Island is headquartered in New York City.

Archipelago (ARCA). Archipelago (www.tradearca.com) is backed by some heavy hitters: Goldman Sachs, J. P. Morgan, Merrill Lynch, American Century, E*Trade, CNBC, and the Instinet ECN (which is owned by Reuters). This

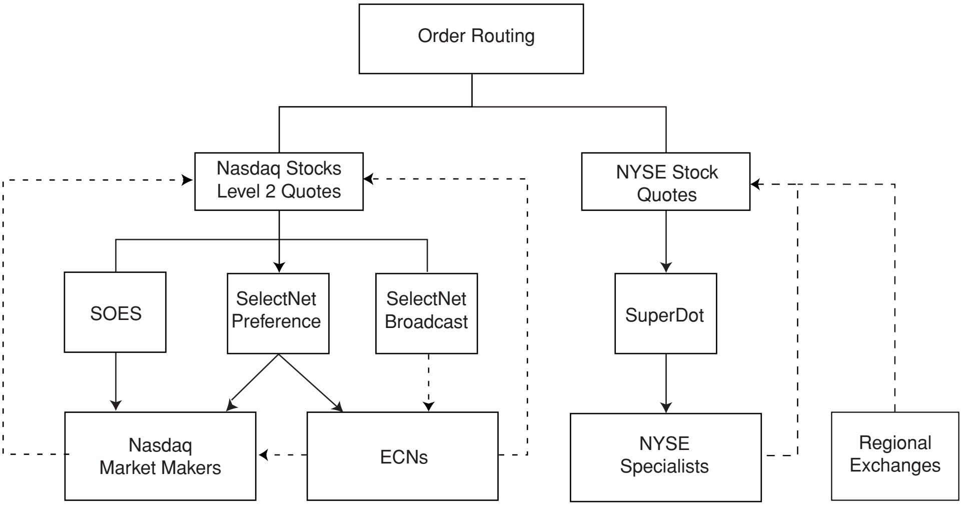

FIGURE 1.1 This flowchart shows the order flow to Nasdaq market makers and ECNs via SOES and SelectNet and to the NYSE via SuperDot. It also shows the flow of stock quotes into the Level 2 quote system. The new Nasdaq National Market Execution System will combine the SOES and SelectNet systems for Nasdaq National Market stocks.

lineup practically guarantees that ARCA will be one of the survivors in the upcoming ECN shoot-out—in one form or another.

This Chicago-based firm uses proprietary software to route orders internally or externally for the best price. Traders may access ARCA, via their brokers, using RealTick™ trading software. ARCA, by the way, was developed by Townsend Analytics (the developer of RealTick™); the ECN was formerly known as Terra Nova and identified as TNTO on the Level 2 screen.

ARCA recently announced plans to join with the Pacific Exchange to create a fully electronic, national stock exchange (subject to approval by the SEC). It also plans to go public, although a date has not yet been set.

REDIBook (REDI). The third largest ECN, REDIBook, is owned by Spear, Leeds & Kellogg, a leading specialist at the NYSE and a major Nasdaq market maker (SLKC on the Level 2 screen). Its trading platform REDIPlus is

FIGURE 1.2 The Island limit order book can be viewed with real-time quotes at www.island.com.

aimed at professional traders while REDIPlus Online is designed for amateur traders. (See them both at www.redi.com.)

REDIBook may soon give Instinet and Island a run for their money. Owner Spear, Leeds & Kellogg is forming a new ECN (presumably to be the successor of REDIBook) with investors Fidelity Investments, Charles Schwab, and Donaldson, Lufkin & Jenrette.

TradeBook (BTRD). TradeBook is owned by Bloomberg LP and has the fourth largest trading volume of the nine original ECNs (www.bloomberg.com/products/trdbk.html). It is used primarily by institutional and professional investors who use the Bloomberg trading terminals. The Global TradeBook, formed in May 1999, provides access to 65 markets worldwide.

TradeBook may also be headed for superECN-dom. According to a press release in May 1999, Bloomberg is combining TradeBook with two alternative trading systems (QuantEX and POSIT) owned by Investment Technology Group, Inc.

Attain (ATTN). Attain (www.attain.com) is the ECN founded by Harvey Houtkin, the self-proclaimed "Father of Day Trading." It is accessed directly by the broker/dealer All-Tech Direct (also owned by Houtkin). Attain trading software is available through All-Tech Direct.

Brass Utility (BRUT) and Strike Technologies (STRK). Brass Utility and Strike Technologies were two of the original nine ECNs approved by the SEC in 1997. At the end of 1999, Brass Utility was the sixth largest ECN in trading volume; Strike, the seventh largest. Their merger in February 2000 moved Brut, the surviving ECN, up to third place, behind Island and Instinet.

Brut was originally an operating unit of SunGard Data Systems, Inc. Owners of the new Brut ECN include, among others, Bear Stearns, Bridge Trading Company, Goldman Sachs, Knight-Trimark Group, Lehman Brothers, Merrill Lynch, Morgan Stanley Dean Witter, and Salomon Smith Barney. There is no web site at present.

NexTrade (NTRD). NexTrade (www.nextrade1.com) is the smallest of the ECNs. It is a wholly owned subsidiary of Professional Investment Management, Inc. and a founding member of MatchBookFX (www.matchbookfx.com), an electronic matching system for spot foreign currency trading. NexTrade offers its own ProTrade trading software, which you can demo at its web site, and is affiliated with broker/dealer onlinetradinginc.com and GlobalNet Financial. NexTrade offers 24-hour access to the markets.

MarketXT (MKXT). Market XT (www.marketxt.com) is the most recently authorized ECN. Formerly an Alternative Trading System (ATS), it was the first to offer extended-hours trading in August 1999, and currently functions as an extended-hours ECN.

MarketXT was founded by two SEC enforcement lawyers and is managed by the former chief executive officer of Reuters' Instinet. The ECN is being acquired by TradeScape.com, which owns the TradeScape.com electronic brokerage described in Chapter 3. Investors in the new venture include SOFTBANK, Morgan Stanley Dean Witter, and Salomon Smith Barney.

OptiMark (OPTI). While not exactly an ECN, OptiMark is nevertheless integrated into the Level 2 quote system under the symbol OPTI. Designed for institutional investors, it is a market optimization system that matches buy and sell orders based on the intensity of the trader's desire to make the trade. For example, an investor who wants to sell, say, 100,000 shares of a stock priced at $90^1/_4$ to $90^3/_8$ can enter a range of prices and sizes. He or she may be willing to sell 20,000 shares at $90^1/_{16}$ and price the rest in 20,000-share increments at, say, $90^1/_8$, $90^3/_{16}$, $90^1/_4$, and $90^5/_{16}$. OptiMark allows investors to structure an order this way without losing their anonymity.

Coinvented by Bill Lupien, past chairman and CEO of Instinet, OptiMark was launched in June 1999 on the Pacific Exchange and on Nasdaq in August 1999. Major shareholders include General Atlantic Partners, SOFTBANK, American Century, Goldman Sachs, Merrill Lynch, and PaineWebber.

To learn more about OptiMark, read the press releases at www.optimark.com.

As their ownership structure demonstrates, ECNs are firmly entrenched in the financial establishment. They are currently used strictly for limit orders, but that will change for the ones that become full-fledged exchanges. But for now, all you need to be concerned with is how to use them for the best trade execution.

COMING UP . . .

Now that we've surveyed the playing fields of the day trading game, let's take a look at the tools of the trade: specifically, the Level 2 quote montage and the rules for using SOES, SelectNet, SuperDot, and the ECNs.